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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/970,122	10/02/2001	Hou-Pu Chou	020174-002510US	2108

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EXAMINER

PHASGE, ARUN S

ART UNIT PAPER NUMBER

1753

DATE MAILED: 03/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/970,122	Applicant(s) CHOU ET AL.	
	Examiner Arun S. Phasge	Art Unit 1753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5,7-9,18-22,27 and 28 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5,7-9,18-22,27 and 28 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 7-9, 18, 20-22 and 27-28 are rejected under 35 U.S.C. 102(b) as being anticipated by van Lintel (Lintel), U.S. Patent 5,085,562.

Lintel discloses the claimed device comprising a flow channel, a pump interconnected to said flow channel, a damper comprises a cavity separated from the flow channel by a flexible membrane, the flexible membrane deflects into the cavity and a control valve operatively interconnected to said flow channel (see abstract and figures 1-7b). The reference further discloses the shape of the channel downstream of the flexible membrane (see figures 1-7b).

Therefore, since the Lintel patent discloses each and every structural limitation, the claims are anticipated.

Claims 1-5, 7-9, 18, 20-22 and 27-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Gravesen et al. (Gravesen), article entitled, "Microfluidics—a review".

The Gravesen reference discloses the claimed device comprising a flow channel, a pump interconnected to said flow channel, a damper comprises a cavity separated from the flow channel by a flexible membrane, the flexible membrane deflects into the cavity and a control valve operatively interconnected to said flow channel (see abstract and page 177 figures 13-14). The reference further discloses the shape of the channel downstream of the flexible membrane (see figure 13). The reference further discloses the T-junction and the pools as presently claimed (see figure 10 and 12).

Thus, since the Gravesen reference discloses each and every structural limitation, the claims are anticipated.

Claims 1-2, 7-9, 18, 20-22 and 27-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Shoji et al. (Shoji), article entitled, "Smallest Dead Volume Microvalves for Integrated Chemical Analyzing Systems."

The Shoji reference discloses the claimed device comprising a flow channel, a pump interconnected to said flow channel, a damper comprises a cavity separated

from the flow channel by a flexible membrane, the flexible membrane deflects into the cavity and a control valve operatively interconnected to said flow channel (see abstract and figures 1-4).. The reference further discloses the shape of the channel downstream of the flexible membrane (see figures 1-4).

Accordingly, since the Shoji reference discloses each and every structural limitation, the claims are anticipated.

Claims 1-5, 7-9, 18, 20-22 and 27-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Lammerink et al. (Lammerink), article entitled, "Modular Concept for Fluid Handling Systems".

The Lammerink reference discloses the claimed device comprising a flow channel, a pump interconnected to said flow channel, a damper comprises a cavity separated from the flow channel by a flexible membrane, the flexible membrane deflects into the cavity and a control valve operatively interconnected to said flow channel (see abstract and figures 1-12). The reference further discloses the shape of the channel downstream of the flexible membrane (see figures 1, 7 and 8). The reference further discloses the T-junction and the pools as presently claimed (see figures 12 and 15).

Consequently, since the Lammerink reference discloses each and every structural limitation, the claims are anticipated.

Response to Arguments

Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arun S. Phasge whose telephone number is (571) 272-1345. The examiner can normally be reached on MONDAY-THURSDAY, 7:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam X. Nguyen can be reached on (571) 272-1342. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Arun Phasge', with a large, stylized initial 'A'.

Arun S. Phasge
Primary Examiner
Art Unit 1753

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